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Part VII

Environmental Protection Agency

National Emission Standards for Hazardous Air Pollutants; Addition of Radionuclides to List of Hazardous Air Pollutants

ENVIRONMENTAL PROTECTION AGENCY

[FRL 1292-8]

National Emission Standards for Hazardous Air Pollutants; Addition of Radionuclides to List of Hazardous Air Pollutants

AGENCY: Environmental Protection Agency.

ACTION: Addition to List of Hazardous Air Pollutants.

SUMMARY: This notice announces the Administrator's decision to list radionuclides as hazardous air pollutants under Section 112 of the Clean Air Act.

ADDRESSES: Docket No. A-79-11, containing material relevant to this action, is located in the U.S. Environmental Protection Agency, Central Docket Section, Room WSM-2903B, 401 M Street, SW, Washington, DC. The Docket may be inspected between 8 a.m. and 4 p.m. on weekdays, and a reasonable fee may be charged for copying.

FOR FURTHER INFORMATION CONTACT: James M. Hardin, Office of Radiation Programs (ANR-460), U.S. Environmental Protection Agency, Washington, D.C. 20460, telephone (703) 557-8610.

SUPPLEMENTARY INFORMATION: Section 122 of the Clean Air Act as amended in 1977 directs the Administrator of the Environmental Protection Agency, after notice and opportunity for public hearing, to review all relevant information and determine whether emissions of radioactive pollutants will cause or contribute to air pollution which may endanger public health. Therefore, the Agency published a notice which called for relevant information and data on radioactive air pollutants and offered to hold a public hearing (44 FR 11707; April 11, 1979). All written comments received were considered in today's decision. Copies of these comments are to be found in the Agency's Central Docket No. A-79-11.

None of the commentors suggested that radioactive air pollutants do not endanger public health. Several commentors provided information on the release of specific radionuclides into the atmosphere. One commentor requested that the comment period remain open until completion of the third report of the National Academy of Sciences' Advisory Committee on the Biological Effects of Ionizing Radiation (BEIR). We do not believe such a delay is appropriate because the BEIR III Report is unlikely to change substantially the conclusions of the first (1972) BEIR Report regarding the carcinogenic effects of radionuclides. We have received a summary of the BEIR III Report which supports this opinion. If the report is completed as scheduled, we will consider its findings in formulating any proposed standards. Public hearings will be held when standards are proposed and comments on the BEIR III Report, if it is used in formulating the standards, will be welcomed at that time.

One commentor requested that the Agency hold a hearing after we make a preliminary determination and decide on our legal, scientific, and economic positions so that informed public comment is possible on these issues before the final determination is made. We do not believe that such a public hearing is either required or useful. The intent of Section 122 is to insure that the Agency has an opportunity to consider any information not previously considered, or to call specific attention to particular information on the emissions of, and health effects from, air pollutants that may be hazardous. In EPA's view, Section 122 does not require what would essentially be a proposed listing notice and hearing. This view is based on the language and history of Section 122 and on the fact that a full hearing on those topics will be available after proposal of standards under Section 112.

Section 112 of the Act directs the Administrator to publish and from time-to-time to revise a list of air pollutants which, in his judgment, probably causes, or contributes to, an increase in mortality or serious illness and to which no national ambient air quality standard applies. Within 180 days after the inclusion of any air pollutant in the list, the Administrator must publish proposed regulations establishing emission standards for such a pollutant, together with a notice of a public hearing to be held within 30 days.

In accordance with the requirements of Sections 122 and 112, the Agency finds that studies of the biological effects of ionizing radiation indicate that exposure to radionuclides increases the risk of human cancer and genetic damage. Also, the Agency finds that emission data indicate that radionuclides are released into air from many different natural and man-made sources with the result that everyone is exposed to them. Further information on these findings is given in Appendix I (biological effects) and Appendix II (emission data) of this notice.

Based on this information, the Administrator has concluded that emission of radionuclides may reasonably be anticipated to endanger public health, and that radionuclides constitute hazardous air pollutants within the meaning of the Clean Air Act. In making this determination, the Administrator has consulted with the Nuclear Regulatory Commission (NRC) as required by Section 122. Among the radionuclides included are those defined by the Atomic Energy Act as source material, special nuclear material, and byproduct material.

In accordance with Section 112(b)(1)(A) the Administrator hereby amends the list of hazardous air pollutants:

List of Hazardous Air Pollutants

* * * * *

6. Radionuclides

Dated: November 8, 1979.

Douglas M. Costle,

Administrator.

Appendix I—Summary of Evidence That Radionuclides are Carcinogenic and Mutagenic to Humans

A. *EPA's Current View.* An extensive body of research has demonstrated that carcinogenicity and mutagenicity are associated with ionizing radiation and, therefore, with exposure to radionuclides. Exposure to enough ionizing radiation increases the risk of most forms of cancer, including leukemia, lymphoma, and cancers of the lung, bone, thyroid, breast, skin, stomach, pancreas, esophagus, pharynx, large intestines, and others. When germ cells of the ovary or testis are exposed to enough radiation, the risk of mutagenesis is increased which, in turn, may cause increased mortality and illness in future generations. For very low doses there is no conclusive evidence of the risk involved.

The relationships between specific radiation doses and risks to health are extremely complex. They depend on physical parameters, such as the energy and type of radiation (e.g., alpha, beta, or gamma radiation), total dose, dose distribution within the body, and dose rate. In addition, many biological factors, such as the specific organ exposed, the radiosensitivity of the individual exposed, errors that occur in biological repair mechanisms, sex, race, age at time of exposure, genetic composition, and state of health, may influence the effects of radiation. These factors involve complex mechanisms of interaction among biological, chemical, and physical systems, which are further complicated because people are also exposed to other factors such as tobacco smoke and industrial chemicals, which

may change the magnitude of radiation effects.

Although there is no conclusive evidence of the effects of very low doses of radiation on human populations, the Agency assumes that the effects of low doses of radiation are proportional to the dose received in estimating the health impact of possible low-level radiation protection standards. We believe this assumption is reasonable and prudent in the light of presently available evidence (1).

The information used by the Agency in formulating these estimates of the biological effects of radiation exposure and the relationships between radiation dose and the effects on public health has been summarized in publications by the National Academy of Sciences (NAS) (2), the United Nations Scientific Committee on the Effects of Atomic Radiation (UNSCEAR) (3), and the International Commission on Radiological Protection (ICRP) (4). These bodies agree that high levels of radiation cause cancer and mutations and that a sensible regulatory approach is to consider risk to be proportional to radiation dose at all low doses.

B. *The Basis of EPA's View.* The first human cancer attributed to external ionizing radiation was reported in 1902 from X-ray exposures (5). By 1911, 94 cases of radiation-related skin cancer and five cases of leukemia in man had been reported in the literature (6). Studies from 1910 to 1912 produced the first reports of radiation induced cancers in experimental animals (7, 8). In 1921, the first association between inhaled radionuclides and carcinogenesis in humans was made by Uhlig for radon exposure and lung cancer in underground miners in the Erz Mountains of Austria, and Czechoslovakia (9). This association was reaffirmed by Ludewig and Lorenser in 1924 (10). Swallowing radium was shown to cause bone necrosis (11), and in 1929, Martland and Humphries reported the association of swallowed radium and osteosarcoma in occupationally exposed workers (12).

In more recent times, several studies of human populations have conclusively shown that sufficient exposure to radiation increases the risk of many different kinds of cancer. Among the most significant of these are the following:

a. Survivors of the atomic bomb explosions at Hiroshima and Nagasaki, Japan (13).

b. Two large groups of medical patients given X-ray therapy or injections of radium-224 for ankylosing spondylitis of the spine (3).

c. Groups of women whose breasts were exposed to X-rays during diagnostic radiation of the thorax or during radiotherapy for benign conditions (3).

d. Patients medically treated with X-rays, mostly to the head and neck, for the alleviation of otherwise benign conditions (3).

e. Underground miners exposed to elevated levels of radon (3).

f. Persons who ingested radium-226 either for medical purposes or in the course of their occupations (2,3).

g. Patients injected with thorotrast (colloidal thorium dioxide) as an x-ray contrast medium (14,15).

h. Children exposed *in utero* to diagnostic x-rays (2,3).

Extensive studies in experimental animals, especially rodents, and studies of cell cultures support the idea that ionizing radiation can cause mutations. Animal studies have shown that ionizing radiation can cause many types of mutations: lethal mutations, translocations, inversions, nondisjunction, and point mutations (2,3). Extrapolations of mutation rates calculated in these studies form the basis for estimating the genetic (hereditary) impact of ionizing radiation in humans (2,3).

Although genetic damage to the children of irradiated persons has not been identified, chromosome aberrations in somatic cells have been observed in persons exposed to ingested strontium-90 and radium-226 (16), inhaled/ingested radon-222 (17), inhaled/ingested plutonium-239 (17), inhaled radon-222 (18), and also in lymphocytes from atomic bomb survivors (19) and shipyard workers at nuclear facilities in England (20).

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Appendix II—Summary of Evidence of Significant Public Exposure to Radinonuclides Because of Emissions Into the Atmosphere

Most of the radionuclides in the atmosphere come from natural sources (1). However, radionuclides are used or produced in thousands of locations

throughout the United States including national defense weaponry facilities, nuclear power plants, industrial plants, research and development laboratories, and medical facilities. Fossil fuel combustion processes, such as large coal-fire boilers, make some contribution to the exposure of the general public. Certain kinds of mining and milling also substantially increase the local concentration of radionuclides in the air.

Although air cleaning equipment is usually used in these facilities, some radionuclides are still released into the atmoshphere and can disperse into populated areas. In most cases the greatest danger comes from breathing these radionuclides, but material which settles on soil or plants may eventually be swallowed. Settled material may also be blown back into the air. People living near some facilities may also be exposed to small levels of direct gamma radiation from airborne or settled radionuclides.

EPA has recently published a preliminary evaluation of the harm caused by emissions of radionuclides into air in the United States (2). The document contains a complilation of the amount of radionuclides released into the atmosphere from each major category of facility known to use such materials. It estimates both the radiation dose to the nearest individual and to the regional population. Using these doses, we have estimated the additional lifetime fatal cancer risk to individuals and the total number of fatal cancers induced in the surrounding population for each year of facility operation. Risk estimates are limited to fatal cancers because we have less confidence in quantitative risk estimates of genetic effects in humans. Our current practice is to assume that for whold body exposure, the number of genetic health effects, and the number of nonfatal cancers are each about the same as the number of deaths (3).

Sources can be conveniently divided into three major groups: facilities licensed by NRC and certain States which have signed an agreement with NRC; facilities operated and regulated by the Department of Energy (DOE); and facilities emitting elevated concentrations of naturally-occurring radionuclides. The kinds of radionuclide emissions, estimates of dose rates, and estimates of fatal cancer risks derived from model facilities which are representative of source categories are shown in Tables 1 and 2. Table 3 shows data derived from actual DOE facilities.

These summary tables show that significant amounts of radionuclides are being released by man into the atmosphere. Such estimates shoulld be used carefuly and with recognition that they are highly uncertain. This uncertainty is caused by limited data on emissions and by the use of assumptions in environmental transport models and in dose models. Based on these calculations, the highest estimated doses received are to people near elemental phosphorus plants. Our preliminary dose estimates for such people give 1800 mrem/yr to the kidney, 740 mrem/yr to the lung, and 570 mrem/yr to the bone. People living near underground uranium mines may be exposed to elevated airborne concentrations of radon daughters as high as 0.006 working levels. (WL).

We estimate that even the individuals who live closest to the facilities listed in Tables 1, 2, and 3 receive doses which are less than the present applicable Federal Guidance as established by the former Federal Radiation Council (4,5). However, EPA considers the potential risk from doses as large as those received from many of these facilities to be unnecessarily high. We believe that emissions from such facilities should be reduced to as low as reasonably achievable levels. In specific cases, EPA has already promulgated standards and proposed Federal Guidance which holds the exposure of people to levels below that found around many of the listed source categories. These actions include: Drinking Water Regulations (Radionuclides) (6), Environmental Radiation Protection Standards for Nuclear Power Operations (7), and proposed Federal Guidance for Persons Exposed to Transuranium Elements in the Environment (8).

EPA considers its current estimates of risk to be sufficiently accurate to support the decision to list radionuclides as hazardous air pollutants. However, we will continue to improve our preliminary estimates of how much cancer is caused by facilities which release radionuclides into the air.

As provided in EPA's recently published proposed rules for regulating airborne carcinogens (44 F.R. 58642–58670; October 10, 1979), EPA will base all decisions on setting standards for radionuclide emissions on detailed risk assessments and complete regulatory options analyses considering the following factors: a detailed examination of sources of emissions of radionuclides into air, the risks caused by these emissions, the costs and effectiveness of emission control technologies, the benefits of the activities causing the emissions, the relationships between who is receiving the benefits versus who is required to accept the risks, and the possibility of using substitutes to reduce emissions. EPA will request public comment before making standard-setting decisions.

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Table 1

Summary of radiological impact caused by atmospheric emissions from licensed[a] sources

Source category	Number of sources	Model facility: Principal radionuclide emissions (Ci/y)		Principal dose equivalent rates: Maximum individual (mrem/y)[b]		Principal dose equivalent rates: Regional Population (Person-rem/y)[c]	Lifetime risk to the maximum individual (x 10^{-6})	Expected fatal cancers per year of operation / Regional population (Fatal cancers)
Uranium conversion facilities	2	U-238	0.08	Lung	88	120	300	0.007
		U-234	0.08	Bone	9	5		
		Th-234	0.08					
Fuel fabrication facility	16	U-234	0.008	Lung	5	7	20	0.0004
		U-23·	0.0003	Bone	0.5	0.3		
		U-235	0.0004					
		U-238	0.001					
		Th-231	0.0003					
		Th-234	0.001					
Light water reactors								
Boiling water reactors	25	Noble gases	7,000	Thyroid	11	19	20	[d]0.001
		Tritium	43	Whole body	2	8		
		Halogens	1.4					
Pressurized water reactors	44	Noble gases	13,000	Thyroid	1	7	9	[d]0.001
		Tritium	1,100	Whole body	0.8	5		
		Halogens	0.05					
High temperature gas cooled reactor (Fort St. Vrain)	1	Noble gases	1,100	Whole body	0.5	6	6	0.001
Radiopharmaceutical industry								
Producers	34	I-125	0.9	Thyroid	86	200	8	0.0003
		I-131	0.9	Whole body	0.2	0.7		

See footnotes at end of table.

Table 1--continued

Summary of radiological impact caused by atmospheric emissions from licensed[a] sources

Source category	Model facility: Number of sources	Principal radionuclide emissions (Ci/y)		Principal dose equivalent rates: Maximum individual (mrem/y)[b]		Regional Population (Person-rem/y)[c]	Lifetime risk to the maximum individual (x 10^{-6})	Expected fatal cancers per year of operation: Regional population (Fatal cancers)
Test reactors	2	Ar-41 Tritium	450 150	Whole body	0.2	1	2	0.0002
Research reactors	13	Ar-41 Tritium	200 100	Whole body	0.09	0.5	1	0.00008
University reactors	54	Ar-41 Tritium	1,000 100	Whole body	0.4	2	5	0.0004
Shallow land burial Low level waste	6	Tritium	19,000	Bone Whole body	30 20	6 5	90	0.0008
Industrial users	4,000	Mostly sealed	No data					

[a]Sources licensed by the Nuclear Regulatory Commission (NRC) or States which have entered into an agreement with the NRC whereby certain regulatory authority is relinquished by the NRC and assumed by the States pursuant to Section 274 of the Atomic Energy Act of 1954, as amended.

[b]The maximum dose equivalent rate an individual is likely to receive living near the facility.

[c]The maximum collective dose equivalent rate to the regional population. This is the maximum value expected to occur within 100 years following the start of facility operation.

[d]The number of fatal cancers to the worldwide population has been estimated to be 0.04 from BWRs and 0.02 from PWRs per year (2).

Table 2

Summary of radiological impact caused by atmospheric emissions of natural radioactive materials

Source category	Number of sources	Model facility: Principal radionuclide emissions (Ci/y)[a]		Exposure levels: Maximum individual (WL)	Exposure levels: Regional Population (Person-WL)	Principal dose equivalent rates:	Maximum Individual (mrem/y)[b]	Regional Population (Person-rem/y)[c]	Lifetime risk to the maximum individual (x 10^{-6})	Expected fatal cancers per year of operation: Population Regional (Fatal cancers)	Expected fatal cancers per year of operation: Population U.S. (Fatal cancers)
Uranium Mines											
Underground	251	Rn-222	6800	0.006	1.3		-	-	10,000	0.03	0.08
Open pit	36	Rn-222	2000	0.00084	0.38		-	-	1,000	0.008	0.02
Uranium Mills	21	Rn-222	2700	0.0049	0.54	Lung	350	3.4	10,000	0.01	0.03
		U-238+d	0.4			Bone	360	3.9			
Phosphate Industry											
Mining and beneficiation	35	Rn-222	1300	0.00022	4.9		-	-	300	0.1	
Drying and grinding facilities	20	Rn-222	20	0.00005	0.084	Lung	54	17	500	0.004	
		U-238+d	0.03			Bone	79	18			
Phosphoric acid plant	35	Rn-222	480	0.00066	2.0	Lung	85	46	2,000	0.05	
		U-238+d	0.1			Bone	110	45			
Elemental phosphorus plant	9	Rn-222	490	0.00035	2.0	Lung	740	770	6,000	0.1	
		U-238+d	0.07			Bone	570	440			
		Po-210	7.4			Kidney	1800	1400			
Coal-fired power stations[d]	395										
Urban site		Rn-222	1.9	0.00001	0.024	Lung	0.88	2600	10	0.2	
		U-238+d	0.25			Bone	1.6	1300			
		Th-232+d	0.07								
Suburban site		Rn-222	1.9	0.00001	0.002	Lung	1.1	190	10	0.02	
		U-238+d	0.25			Bone	2.1	160			
		Th-232+d	0.07								
Rural site		Rn-222	1.9	0.00001	0.0005	Lung	2.1	51	60	0.005	
		U-238+d	0.25			Bone	16.0	50			
		Th-232+d	0.07								
Remote site		Rn-222	1.9	0.00001	0.00001	Lung	0.79	0.5	10	0.00008	
		U-238+d	0.25			Bone	2.1	1.5			
		Th-232+d	0.07								

See footnotes at end of table.

Table 2--continued

Summary of radiological impact caused by atmospheric emissions of natural radioactive materials

Source category	Number of sources	Model facility: Principal radionuclide emissions (Ci/y)[a]		Exposure levels: Maximum individual (WL)	Exposure levels: Regional Population (Person-WL)	Principal dose equivalent rates: Maximum Individual (mrem/y)[b]	Principal dose equivalent rates: Regional Population (Person-rem/y)[c]	Lifetime risk to the maximum individual (x 10^{-6})	Expected fatal cancers per year of operation: Population Regional (Fatal cancers)	Expected fatal cancers per year of operation: U.S. (Fatal cancers)
Metal mining and milling[e]	177	Rn-222	30 to 3000	< 0.00001 to 0.0006	0.005 to 0.8	-	-	20 to 900	0.0001 to 0.02	
Non-metal mining and milling[f]	4,200	Rn-222	0.2 to 18	< 0.00001 to 0.00004	0.0007 to 0.06	-	-	0.7 to 50	0.00002 to 0.001	
Underground drinking water treatment plants	40,000	Rn-222	3.4	< 0.00001	0.06	-	-	10	0.001	

[a]U-238+d includes daughter products of uranium-234, thorium-230, radium-226, polonium-210, and lead-210 except for elemental phosphorus plants when polonium-210 is not included among the uranium-238 daughter products. Thorium-232+d includes the daughter products of radium-228, thorium-228, and radium-224.

[b]The maximum dose equivalent rate an individual is likely to receive living near the facility.

[c]The maximum collective dose equivalent rate to the regional population. This is the maximum value expected to occur within 100 years following the start of facility operation.

[d]The emission rates presented for the source category are based on a model representative of new plants releasing one percent of the fly ash.

[e]Includes iron, copper, zinc, and bauxite.

[f]Includes clay, limestone, fluorspar.

Table 3

Summary of radiological impact caused by atmospheric emissions from Department of Energy facilities

Facility	Number of facilities	Principal radionuclide emissions (Ci/y)		Principal dose equivalent rates[a] Maximum individual (mrem/y)		Regional Population (Person-rem/y)	Lifetime risk to the maximum individual ($\times 10^{-6}$)		Expected fatal cancers per year of operation Regional population (Fatal cancers)
Savannah River Plant[b]	1	Ar-41	65,000	Total body	1.1	110	Site boundary	20	0.02
		C-14	63						
		Tritium	360,000						
		Kr-85	440,000						
Los Alamos Scientific Laboratory	1	Ar-41	800	Total body	70	11	Site boundary	1,000	0.002
		C-11	14,000				Nearest resident	300	
		Tritium	39,000						
		N-13	1,400						
		O-15	32,000						
Lawrence Livermore Laboratory	1	Ar-41	380	Total body	4.3	2.9	Site boundary	60	0.0006
		Tritium	5,200				Nearest resident	10	
		N-13	590						
		O-15	390						
Rocky Flats Plant	1	Pu-239 & Pu-240	0.000004	Lung	0.08	130	Site boundary	0.3	0.007
		U-235	0.00002	Bone	0.035	58			
		U-238	0.00002	Kidney	0.004	7			
				Liver	0.005	9			
Argonne National Laboratory	1	Ar-41	30,000	Total body	5.6	180	Site boundary	80	0.04
		Tritium	850				Nearest resident	40	
Brookhaven National Laboratory	1	Ar-41	360	Total body	0.16	19	Site boundary	2	0.004
		Tritium	1,200						
		O-15	67,000						

See footnotes at end of table.

Table 3--continued

Summary of radiological impact caused by atmospheric emissions from Department of Energy facilities--continued

Facility	Number of facilities	Principal radionuclide emissions (Ci/y)		Principal dose equivalent rates[a] Maximum individual (mrem/y)	Regional Population (Person-rem/y)	Lifetime risk to the maximum individual ($\times 10^{-6}$)		Expected fatal cancers per year of operation / Regional population (Fatal cancers)
Oak Ridge Facilities[c]	1	U-234 I-131 Kr-85	0.06 1.4 8,600	Lung 4.6 Bone 5.5 Thyroid 1.5	Total body 4.7	Nearest resident	10	0.001
Portsmouth Gaseous Diffusion Plant[c]	1	Th-234 U-234 Tc-99	0.05 0.1 4.5	Lung 1.1 Bone 1.2 Kidney 1.1 G. I. Tract 2.2	Total body 0.19	Site boundary	10	0.00004
Paducah Gaseous Diffusion Plant[c]	1	U-234 U-238	0.2 0.2	Lung 6.3 Bone 0.9	NR	Site boundary	20	NR
Ames Laboratory	1	Ar-41 Tritium	13,000 1,000	Total body 5.5	250	Site boundary	80	0.05
Other sites	17	Various	Small	Total body<1	Total body <10	Site boundary	<10	< 0.002

[a]Data taken directly from DOE reports.
[b]All doses are 70-year dose commitments.
[c]All doses are 50-year dose commitments.
NR Not reported.

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AGENCY PUBLICATION ON ASSIGNED DAYS OF THE WEEK

The following agencies have agreed to publish all documents on two assigned days of the week (Monday/Thursday or Tuesday/Friday). This is a voluntary program. (See OFR NOTICE FR 32914, August 6, 1976.)

Monday	Tuesday	Wednesday	Thursday	Friday
DOT/SECRETARY*	USDA/ASCS		DOT/SECRETARY*	USDA/ASCS
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DOT/FAA	USDA/FNS		DOT/FAA	USDA/FNS
DOT/FHWA	USDA/FSQS		DOT/FHWA	USDA/FSQS
DOT/FRA	USDA/REA		DOT/FRA	USDA/REA
DOT/NHTSA	MSPB/OPM		DOT/NHTSA	MSPB/OPM
DOT/RSPA	LABOR		DOT/RSPA	LABOR
DOT/SLSDC	HEW/FDA		DOT/SLSDC	HEW/FDA
DOT/UMTA			DOT/UMTA	
CSA			CSA	

Documents normally scheduled for publication on a day that will be a Federal holiday will be published the next work day following the holiday

Comments on this program are still invited. Comments should be submitted to the Day-of-the-Week Program Coordinator, Office of the Federal Register, National Archives and Records Service, General Services Administration, Washington, D.C. 20408

REMINDERS

The items in this list were editorially compiled as an aid to **Federal Register** users. Inclusion or exclusion from this list has no legal significance. Since this list is intended as a reminder, it does not include effective dates that occur within 14 days of publication.

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Food Safety and Quality Service—

67626 11-27-79 / Meat denaturing standard

HOUSING AND URBAN DEVELOPMENT DEPARTMENT

Office of the Secretary—

67906 11-27-79 / Procedures for protection and enhancement of environmental quality: department-wide environmental procedures

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67624 11-27-79 / Posting of OPM regulations in Federal agencies

List of Public Laws

Note: No public bills which have become law were received by the Office of the Federal Register for inclusion in today's List of Public Laws.

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(Revised as of October 1, 1979)

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_____	Title 46—Shipping (Parts 110 to 139)	4.25	_____
_____	Title 49—Transportation (Parts 1 to 99)	4.75	_____
		Total Order	$_____

[A cumulative checklist of CFR issuances for 1979 appears in the back of the first issue of the Federal Register each month in the Reader Aids section. In addition, a checklist of current CFR volumes, comprising a complete CFR set, appears each month in the LSA (List of CFR Sections Affected).]

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